

# ***DON XML - Achieving Enterprise Interoperability***

*Overview of Policy, Governance, and  
Procedures for XML Development*

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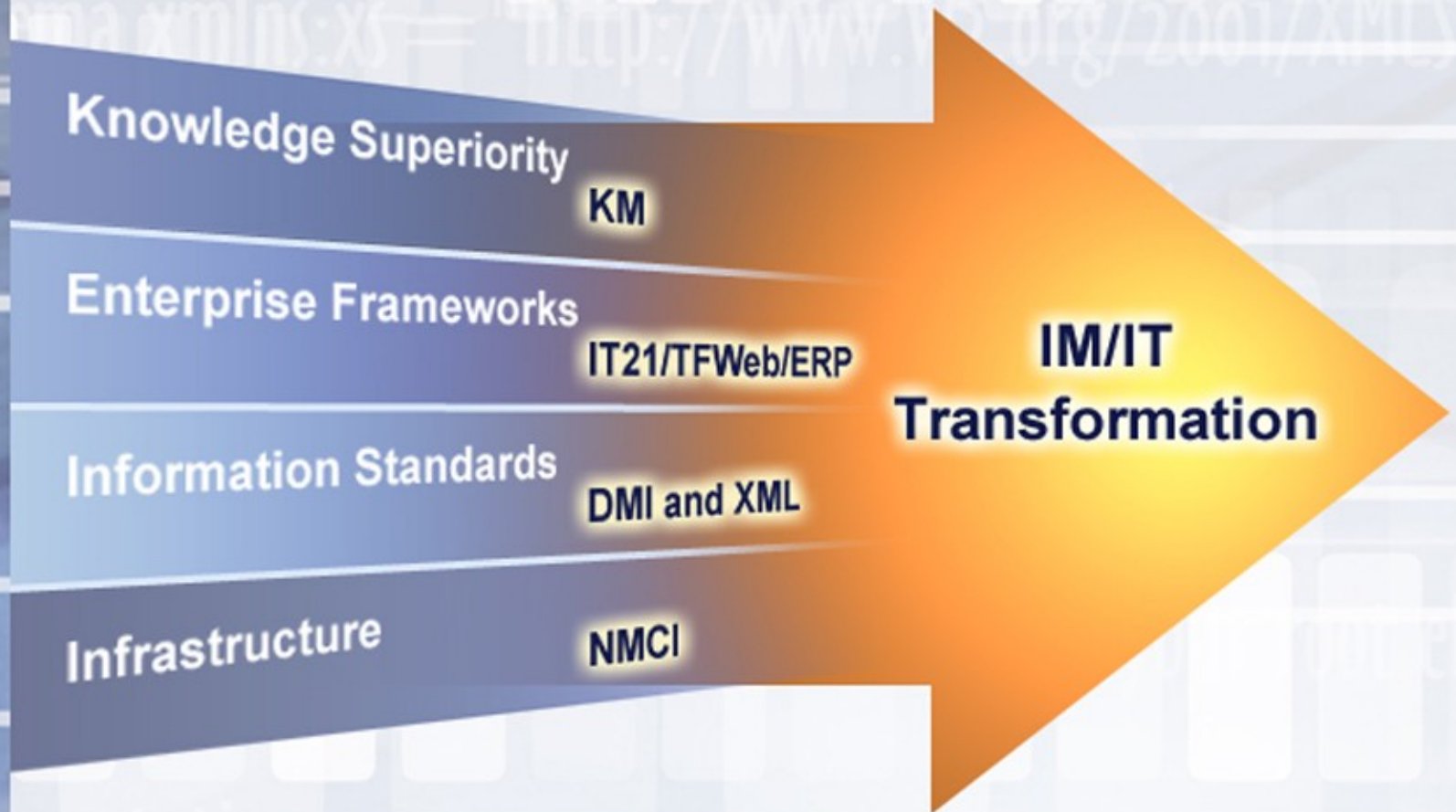
***Office of the DON CIO***

**DON**  
**XML**

**The Department of the Navy will fully exploit  
Extensible Markup Language as an enabling  
technology to achieve interoperability in  
support of maritime information superiority.**

**—Signed by DON CIO  
15 March 2002**

## Vision— Introduction



**Interoperability and systems integration are crucial to achieving maritime information superiority.**

## **Vision— XML Enabled Services & Applications**

### **➤ XML enabled applications**

- **Are based on XML technical specifications**
- **Will employ XML business standards**
- **Play key role in all aspects of systems development, integration, and interoperability**
- **Integral to achieving knowledge superiority**
- **Must be capable of supporting interoperability with legacy systems**

### **➤ DON Involvement**

- **Identifying DON requirements through standards efforts**
- **Identifying DON requirements through Alpha and Beta testing of vendor products**

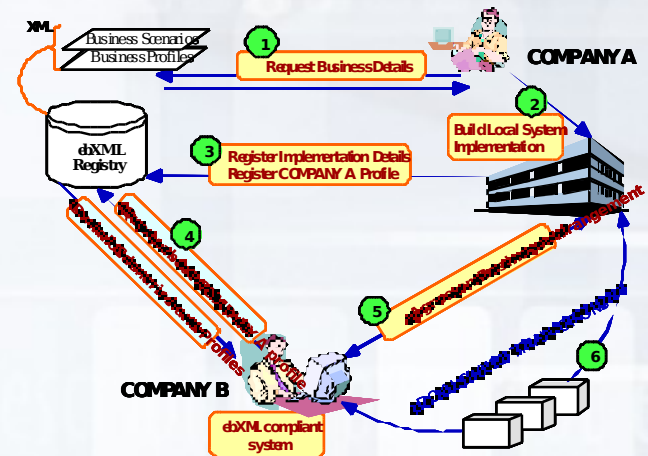
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**DON must be proactive about providing inputs to XML standards bodies and solution providers.**



## Vision— Moving Forward with DON IM/IT Initiatives

- **The DON must establish XML based protocols as enterprise-wide standards**
  - Identify, adopt, deploy single set of platform-independent information exchange protocols (XML)
  - Extend this model to the entire DON enterprise
  - Interoperability WILL BE enhanced
  - Develop distributed registry solution



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**The DON CIO is tasked with developing the required governance for establishment of DON-wide XML based protocols.**

# Achieving the Vision - DON XML Policy

## DON XML Policy

- **Formal policy issued by DON CIO 13 Dec 2002**
- **First comprehensive formal XML policy issued in DoD**
- **Replaces Interim DON XML Policy of 06 Sept 2001**
- **Provides significantly more detailed direction than Interim XML Policy**

## **DON XML Policy (cont.)**

### **Standards and Proprietary Extensions**

- **XML Technical Specifications and Business Standards**
  - **Production applications shall only use W3C specifications holding Recommended status**
  - **Make use of other XML specifications from National and International standards bodies, e.g., ISO, IEEE, ANSI, OASIS, UN/CEFACT, IETF**
  - **Where conflicting, W3C takes precedence**
- **The DON shall actively participate in Voluntary Consensus Standards organizations, e.g., OASIS, W3C**
- **DON XML production implementations shall not use proprietary extensions to XML specifications**



## **DON XML Policy** (cont.)

### Reuse and Order of Precedence

- **Reuse existing XML components**
  - **DON policy to advocate, support, and ensure the development, maintenance, registration, discovery, and reuse of standard XML within functional areas and at the enterprise level**
- **When selecting XML components, adhere to the following order of precedence**
  - **Appropriate Business Voluntary Consensus Standards (BVCSs)**
  - **Federal-level standards**
  - **DoD standards**
  - **DON enterprise standards**

## **DON XML Policy** (cont.)

### **Developer's Guide, Enterprise Standards, & DoD Registration**

- **All DON XML development shall adhere to DON XML Developer's Guide**
- **All DON XML business standards will be at the enterprise level**
- **Adhere to DoD XML registration policy (to be implemented via DON Namespace and Subnamespaces)**

## **DON XML Policy** (cont.)

### Additional Information

- **Policy directs Functional Area Managers (FAM) to designate XML Functional Namespace Coordinators (FNC)**
- **DONXML WG tasked with taking necessary actions to implement policy**
- **DON Commands tasked to:**
  - **Work with FNCs to develop standard enterprise XML components**
  - **Participate in the DONXML WG and review the WG products**
  - **Implement the requirements of the policy**

# Achieving the Vision - Governance Structure

## Why a Governance Structure?

- **To enable enterprise-wide implementation of XML standards throughout the DON**
- **To ensure maximum interoperability across XML technology focus areas**
- **To harmonize business and technical perspectives**
- **To manage and bind XML aspects of diverse, independent initiatives**
- **To support user needs while maintaining necessary elements of coordination and control**
- **To foster coordination and cooperation between implementers, users, key individuals, groups and organizations involved in XML**



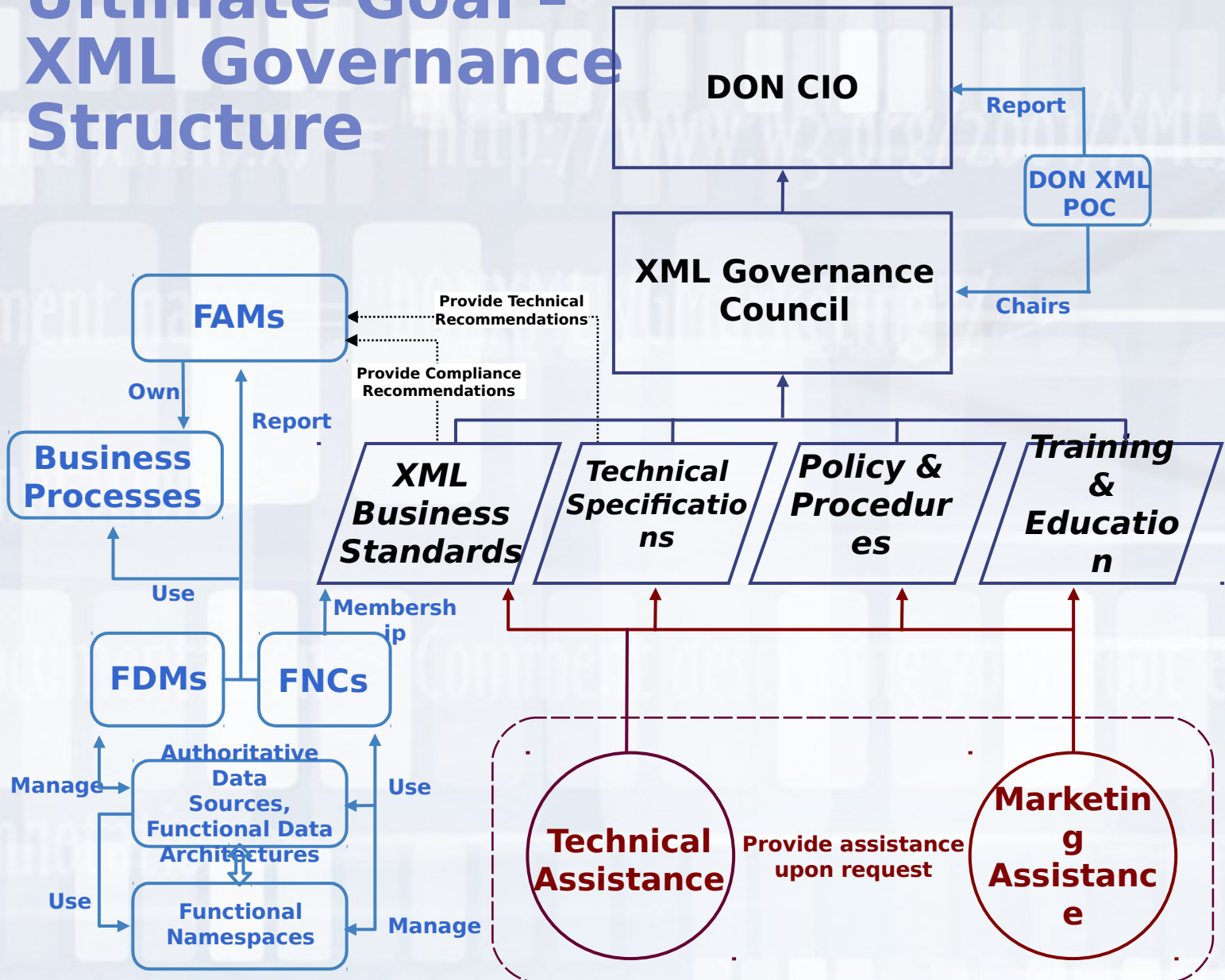
## Governance Structure Scope

- **All XML application development within the DON**
  - **Proof-of-concept, and full “programmatic”**
- **All existing implementations of XML**
- **To extent practical, DON use of XML in Joint applications**

## Governance Structure Functions

- **Act as focal point for XML within DON**
- **Provide rapid, responsive issue resolution and provide venue for communication within DON on XML issues**
- **Coordinate incorporation of DON XML implementation into DON requirements, budgeting and acquisition processes**
- **Provide oversight of DON XML implementation (enforcement)**
- **Interface with external organizations/activities on XML strategy**
  - **Business Standards - Voluntary Consensus Standards, Federal, DoD, other military components, Etc.**
  - **Technical Specifications - Voluntary Consensus Standards, Federal Enterprise Architecture, GIG, DII**
  - **Policy and Procedures - Federal CIO XML WG, OSD, other services**
- **Carry out or delegate other duties as required to achieve DON XML Vision and implement DON XML Policy**

# Ultimate Goal - XML Governance Structure



## DON XML Governance Council

- **Reports directly to DON CIO**
- **Chaired by DON XML POC**
- **Membership (Under Development)**
  - **Chairs of four working level councils**
  - **Fleet representatives (TBD)**
- **Stand-up TBD**

## **DON XML Business Standards Council (BSC)**

- **Chartered by DON CIO Apr 21, 2003**
- **Recently designated DON XML Functional Namespace Coordinators (FNC) make up primary membership**
- **BSC responsible for:**
  - **Coordinating and harmonizing XML components across 23 functional areas**
  - **Apply the DON XML Component Hierarchy**
  - **Ensure maximum exposure to, and coordinated involvement in, business standards VCS organizations (e.g., OASIS)**
  - **Provide business standards compliance recommendations to FAMs**
- **Formal operating procedures nearly complete**



## Technical Specifications Council (TSC)

- **TSC Responsibilities**
  - **Provide technical guidance to FAMs and DON XML developers**
  - **Ensure maximum exposure to, and coordinated involvement in, technical specification VCS organizations (e.g., W3C)**
  - **Maintain list of DON approved XML technical specifications**
  - **Consolidate DON XML technical requirements for submission to VCS**
  - **Provide technical compliance recommendations to FAMs**
- **Membership (under development)**
  - **8 technology focus areas**
  - **Single DON organization as lead for each area**
  - **TBD**
- **Charter (under development)**
- **Operating Procedures (under development)**
- **Stand up planned for August 2003**

## Other Working Level Councils

- **Policy and Procedures Council (PPC)**
  - Channel architecture development efforts towards a common set of procedures and guidance
  - Ensure enterprise approach
  - Coordinate P&P issues
  - Ensure balance between top-down management and bottom-up creativity
  - Support implementer requirements
- **Education and Training Council (ETC)**
  - Enable collaboration
  - Ensure seamless harmonization between:
    - XML governance structure
    - DON training commands
    - Service training activities
    - Echelon, Functional Area and Organization Level training activities
    - Outreach efforts

# XML Development

## CDA role

- **Contact your FNC**
- **Respond to XML Data Call Naval Message (to be released Shortly)**
- **Work with FNC to facilitate and refine the registration process**
- **Understand and follow the DON XML Developer's Guide**
- **Use the XML Registry/Repository**
  - **Reuse XML types and fragments whenever possible**
  - **Extend XML only if necessary**
  - **Create new XML types and fragments only as last resort**
- **Use listserves and NKO to communicate to other developers**

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**CDA is key to developing  
interoperable enterprise-wide XML**

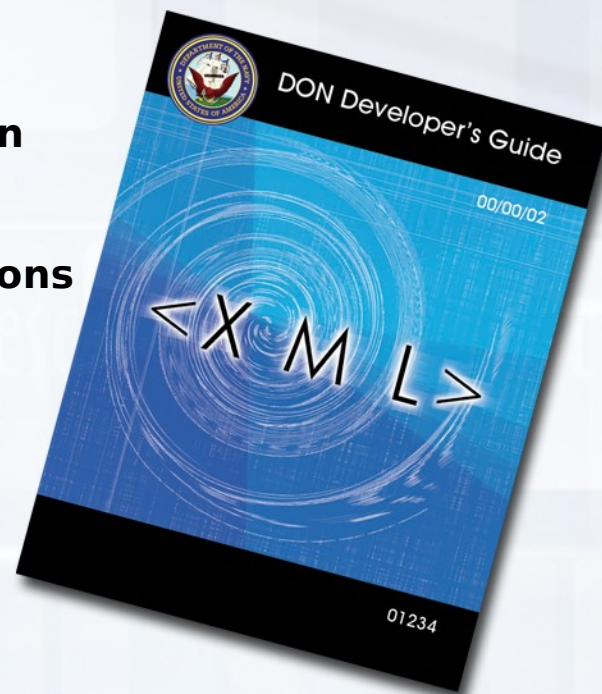
## Development Process

- **Notify your FNC of the intent to develop**
  - Notification allows for other functional areas to assist by providing already developed fragments and reduces duplicative efforts
  - Facilitates harmonization efforts before registration
- **Develop compliant XML**
  - Use DON XML Developer's guide
- **Submit XML to FNC for harmonization via DON Functional Subnamespaces in DoD Registry**
- **FNC submits XML to Business Standard Council for approval**
- **DON registers XML standards under DON Namespace in DoD Registry**



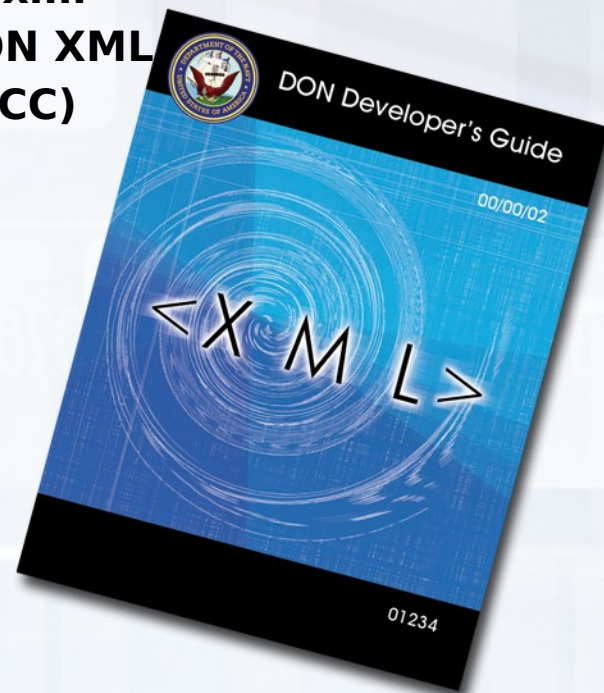
# DON XML Developer's Guide

- **Version 1.1: Published on 1 May 2002**
- **Provides general development guidance for the many XML initiatives currently taking place within the DON**
- **Provides guidance in areas such as the following:**
  - **Use of XML specifications**
  - **XML component selection/creation**
  - **XML Schema design**
  - **XML component naming conventions**
- **Version 2.0 under development**



# The Guide Layout

- **Uses RFC 2119 Terminology to express recommendations**
  - Requirements: **MUST (NOT), SHALL (NOT), REQUIRED**
  - In Guidance, implementation is at PM discretion
- **Available on line at:**  
**<http://quickplace.hq.navy.mil/navyxml>**  
**(click on “library”) and on NKO DON XML**  
**Enterprise Collaboration Center (ECC)**
- **41 Pages**
  - **Guidance**
  - **Explanation**
  - **Examples**
  - **Appendices - Draft Status**



## Next Steps

- **Contact the appropriate FNCs**
- **Understand the Developer's Guide**
- **Evaluate your XML against the Developer's Guide**
- **Join the XML community through listserves, NKO**
- **Additional guidance is coming soon!**
  - XML Registration process
  - XML Developer's Guide v2.0
- **Participate in upcoming DONXML Work Group Meeting, 22-24 July in DC Area**
  - Continue work on DON XML Developer's Guide v2.0
  - Continue work on stand-up of DON XML Governance Structure

# Resources & Point of Contact

- **FNC**  
POC info attached and available on NKO
- **Navy Knowledge Online**  
<http://www.nko.navy.mil>
- **DON XML Quickplace**  
<https://quickplace.hq.navy.mil/navyxml>
- **DON XML Work Group Listserve**  
*Developer's Guide* - <http://mail.fedworx.org/devguide.html>  
*General Work Group Announcements* - <http://mail.fedworx.org/donxmlwg.html>

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# Questions?



# Back up

# Functional Namespace Coordinator

## FNC Responsibilities

- **Develop and manage DON XML enterprise and functional area namespace(s)**
- **Adhere to higher level policy and guidance requirements**
- **Implement DON XML strategy and processes**
- **Assist PMs and other systems developers with production of:**
  - **Standard markup**
  - **Schema components**
  - **Schemas**
  - **Stylesheets**
  - **Namespace associations**
  - **Core Components & Business Information Entities**
  - **Required Metadata**

## FNC Responsibilities (con't)

- **Ensure PMs and developers only define XML components for information they produce and is the authoritative source**
- **Promote Authoritative Source Data (ASD) and ASD based XML component use**
- **Ensure that DON requirements are filtered up to the Voluntary Consensus Standards**
- **Manage XML components. In conjunction with FDM**
  - **Reconcile functional area and cross-functional XML tags, element and attribute names, and required metadata with core components, as they become available**